

general effects—drunkenness, sudden death, the condition induced by the habit of drinking, acute and chronic alcoholism; secondly, of the organic affections thus brought on; and thirdly, of the influence of alcoholism upon the duration of life, upon posterity, and in reference to the degeneration of the human species.

In connection with delirium tremens, which to the physician is the most important of the abnormal conditions brought on by alcohol, on account of its frequency and gravity, and of the judgment necessary in its treatment, two questions have been mainly agitated of late; viz., whether the disorder is due to a cumulative poisonous effect, or to the sudden abstraction of an accustomed stimulus, and what is the line of treatment proper to be pursued. Unfortunately M. Racle passes both these questions over almost entirely, so that we are left in the dark as to the opinions of the profession in France in regard to them.

The remaining portions of this essay are extremely concise; they are devoted to different medico-legal and hygienic matters. M. Racle speaks of temperance societies as having been found very useful in America, "where they have multiplied since 1813." Without any desire to undervalue these institutions, we must remark that their importance was at one time much overrated. Where a mutual supervision is exercised by the members, such compacts may be of advantage; but the mere signing of a pledge, in a moment of enthusiasm, has in numberless instances proved utterly nugatory against a temptation so besetting as that of intoxicating liquors. A tacit but practical acknowledgment of this fact is to be found in the circumstance that the opponents of intemperance have almost entirely abandoned this method of insuring reform.

Although this essay of M. Racle's can hardly lay claim to the title of an exposition of the subject of alcoholism, it presents a very excellent *résumé* of it, and will at any rate be suggestive to those who may desire to investigate the matter more deeply.

J. H. P.

ART. XXVIII.—*A Treatise on Medical Electricity, Theoretical and Practical, and its Use in the Treatment of Paralysis, Neuralgia, and other Diseases.*
By J. ALTHAUS, M. D. Philadelphia: Lindsay & Blakiston, 1860. pp. 354.

ALTHOUGH a very large majority of those who are engaged in medical or surgical practice have, in the course either of their preliminary or of their professional education, acquired some general ideas as to the phenomena of electricity, yet their knowledge of its laws is, for the most part, much too superficial to enable them to employ it therapeutically. The object of the volume before us is, as its title indicates, to assist the profession at large in making use of this most powerful agent in the treatment of disease; and its author may congratulate himself upon having materially contributed to the advancement of medical science.

Dr. Althaus has arranged his subject under five heads, in as many chapters. He first describes the different forms of electricity—static or frictional, dynamic, including galvanism and electro-magnetism, and animal; next, its physiological effects upon the living organism and its component parts; in his third chapter he discusses the apparatus for its medical application; fourthly, he treats of its use in diagnosis; and lastly, of its therapeutical employment. Atmospheric electricity and lightning form the subject-matter of a brief appendix.

Under the head of electro-physiology, Dr. A. has given a very interesting *resumé* of the results arrived at by Weber, Matteucci, Schönbein, Du Bois Reymond, Nobili, and others. The most interesting portion of this chapter, and the most important, is that relating to the electrization of the nervous and muscular systems. Dynamic electricity is the form employed in these researches, as well as for remedial purposes, on account of the convenience of generating, regulating, and localizing it.

Daniell's battery, consisting of zinc plunged in salt or acidulated water, and copper in a solution of sulphate of copper, is the one preferred by Dr. Althaus for medical use. It would require a greater space than we have here at command to pass in review the various forms of apparatus invented by Cruikshank,

Middeldorpf, Ellis, Breton, and others, for galvanization, or the application of the continuous current of galvanic electricity; or those of Clarke, Duchenne, and others, for Faradization, or the employment of localized induction currents. Among the former, Pulvermacher's chain has obtained much favour in this country; among the latter, we believe that the magneto-electric apparatus of Davis is most generally used.

In his fourth chapter, on the use of electricity in diagnosis, our author quotes the opposing views of Dr. Marshall Hall and Dr. Todd, as to the influence of cerebral disease upon the degree of irritability of the muscles; he coincides with Dr. Todd in the opinion that in this respect cases of paralysis may be divided into three classes:—

"1. If the excitability of the muscles—or rather the polarity of the motor nerves—be *increased* in the paralyzed limb, the case is one of *cerebral paralysis*, connected with an irritative lesion within the cranium.

"2. If the excitability of the muscles be nearly or totally *lost*, we have in all probability either *lead palsy* or *traumatic paralysis*; but it must be kept in mind that certain hysterical and rheumatic palsies of long standing present the same peculiarity; and that it also may be found in cases of disease of the brain and the cord.

"3. *If paralyzed muscles respond readily to the electric current*, there is no lead in the system, nor is the connection between the motor nerves of the paralyzed muscles and the cord interrupted; but if such cases are of *long standing*, they are due to *brain disease*; and if they are of *recent standing*, they are generally instances of *hysterical, rheumatic, or spontaneous paralysis*."

Chapter V., on the therapeutical uses of electricity, is, for obvious reasons, the most important one in this work.

The medical employment of this remedy is chiefly for the relief of affections of the nervous system—loss of power, spasm, neuralgia, and anæsthesia. But, as Dr. Althaus remarks, these conditions are merely symptoms, capable of being produced by widely different disorders; and their causes must be carefully made out before electricity is resorted to.

As might reasonably be expected, cases of paralysis from intra-cranial disease are not very often amenable to electricity, which promises much more, we are told, in "cases of hysterical paralysis, rheumatic paralysis, lead palsy, incomplete paralysis of the lower extremities, connected with disease of the urinary organs; cases of paralysis remaining after acute diseases, such as typhus, cholera, and cases of spontaneous paralysis, in which it is impossible to distinguish the cause of the lesion. Finally, cases of perverted nutrition and atrophy of the muscular substance are almost always beneficially affected by the application of electricity."

Cases of paralysis from brain disease may, as pointed out by Dr. Todd, be divided into three classes, according to the state of the muscles of the part or parts affected. If these be relaxed and non-resistant, a carefully localized application of electricity may have a good effect. If there is rigidity, coming on at the outset, interference in this way would be useless. If, however, the rigidity succeeds a period of wasting and relaxation, there are cases in which the antagonist muscles may be electrically excited with advantage.

Various local palsies are enumerated by Dr. Althaus as likely to be benefited by electricity. The muscles of the eye, and those supplied by the facial nerve, may have their function restored in this way. Hysterical aphonia seems to have yielded readily to Faradization. Wasting palsy, hopeless under any other form of local treatment, may perhaps be arrested, or even corrected, by the judicious and persevering use of electricity. Intestinal atony, and paralysis of the bladder, when not due to any cerebral or spinal lesion, may in like manner be obviated. Dr. Althaus states that he has relieved cases of amenorrhœa by means of electricity, and quotes the similar experience of Golding Bird, Duchenne, and others; Becquerel, however, did not find it effective in a single instance. We are inclined to object to this merging together of all cases in which the catamenia are wanting, in view of the purely symptomatic character of this circumstance; perhaps there is no abnormal phenomenon which needs to be more carefully traced back to its source than this, in order to a judicious choice of treatment.

Among spasmodic affections, chorea and writer's cramp are mentioned by our author as having been relieved by electricity, which he thinks might also prove beneficial in this form of wry-neck, in tetanus, and in hysterical cramps.

Anæsthesia, as regards either special or general sensibility, is amenable to improvement in various degrees under the use of electricity. When of a hysterical form, Dr. Althaus regards it as speedily curable by this agent, which is also very valuable in many cases of insensibility from poisoning.

Neuralgia, when caused by wounds or structural lesions of the nerves, of the passages through which their course lies, or of important organs, affords hardly any chance for the successful operation of electricity. When, however, it seems to be a mere morbid exaltation of sensibility, or is of a rheumatic character, Faradization may be resorted to with advantage.

In regard to the surgical uses of electricity, we think Dr. Althaus speaks a good deal in the manner of a medical theorist. Perhaps more is to be looked for in this way in the treatment of aneurisms and varices than in any other department of practice, unless it be in the prevention and cure of bed-sores. The time may come when lithotomy and lithotripsy are superseded by the galvano-electric current, but the results hitherto attained have not been such as to indicate its near approach; nor do we think that the actual cautery is any less painful when the source of the heat is changed. From the past history of surgery, as well as from the practical experience of the present day, we may learn that the utmost caution is to be maintained in abandoning principles and methods which have been already tested with success, for those which merely hold out brilliant hopes. As a general rule, the simpler the means used the better; we cannot do away with the elements of uncertainty in the material upon which we have to work, but we can narrow them down in the appliances to which we resort.

The little volume which has now been discussed will undoubtedly be of great service to medical men. To those who simply wish to employ electricity in exceptional cases, it will afford an excellent manual; to those who are desirous of pushing their investigations further, it supplies abundant references to the literature of the subject, as well as a clear exposition of its fundamental principles.

J. H. P.

ART. XXIX.—*Proceedings of the American Pharmaceutical Association, at the Eighth Annual Meeting, held in Boston, Mass., September, 1859, with the Constitution and Roll of Members.* Boston: Press of Geo. C. Rand & Avery, 3 Cornhill, 1859.

THIS is the eighth exposition of the annual labours of an institution now permanently organized and placed upon a successful basis of operation. In the year 1852 the pharmacutists of the United States, following the example of their medical colabourers for the public weal, determined to co-ordinate their efforts, with the view of advancing the science under their especial cultivation; of promoting harmony and good feeling among those whose interests were similar; of correcting abuses which have hung over the occupation of dispensing and vending medicines, and of securing generally the elevation and prosperity of the profession of pharmacy. In this enterprise they have been eminently successful, and, judging from the last and the present annual record of their proceedings, seem to be becoming more enthusiastic and effective each succeeding meeting. They have demonstrated effectively that in union there is strength, and that it is only necessary to continue their useful undertaking to secure the highest respect and commendation from the community. With the view of pointing out the scope and the utility of the labours of our pharmaceutical co-operatives, we shall devote what space is at command to the examination of the present volume of proceedings.

The volume is printed in handsome style, and consists of 416 pages, commencing with a report of their minutes. From these we learn that the meeting at Boston, as heretofore, was well attended; *fifty-five* members having been